

REMARKS

Claims 1-3 and 5-28 are pending in the present Application, with claims 13-28 being withdrawn. Claims 2-4 and 7-8 have been canceled by this amendment, and claims 1, 5-6, and 9-12- have been amended, leaving Claims 1-3 and 5-12 for consideration upon entry of the present Amendment.

No new matter has been introduced by the claim amendments.

Claims 1, 5-6, and 9-12 have been amended to recite an automotive assembly plant separator panel, wherein the separator is a multiwall sheet. Support for this amendment can at least be found in Paragraph [0010] of the specification as originally filed.

Claim 1 has also been amended to set forth the type of thermoplastic resin (polycarbonate), the type of electrically conductive filler (carbon black), and the quantity of the electrically conductive filler (6-22% by weight). Support for this amendment can at least be found in Paragraphs [0056] and [0058].

Claim 1 has further been amended to recite that the multiwall sheet consists of a first sheet, a second sheet, and a plurality of ribs, and optionally, one or more additional layers and/or plurality of ribs disposed on the second side of the first sheet and/or the second side of the second sheet, and each comprises a polycarbonate and carbon black. Antecedent basis for this amendment is found at least in Figures 1-2 as filed.

Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1, 11, and 12 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by Davis (U.S. Patent No. 4,788,777) or Erb (U.S. Patent No. 4,114,597). Applicants respectfully traverse this rejection.

To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Varient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987). Applicants assert that neither Davis nor Erb discloses all of the limitations of the present claims.

Davis discloses a sheet having a composition comprising a polycarbonate resin, polysulfone resin, and a glass fiber filler, with up to 1 wt.% of an additive. The additive can

be carbon black or other UV absorber in an amount of up to 1 wt.%, but preferred amounts are no more than about 0.2 wt.% (col. 3, lines 4-9). This disclosure does not meet the limitations of claim 1 as amended. Further, Davis does not suggest use of 2-13 wt.% of carbon black; if anything, Davis teaches away from use of an amount of greater than 1 wt.%.

Erb discloses a solar collector panel having a first section to allow for the passage of solar radiation, a second section juxtaposed to the first section capable of absorbing solar radiation and transferring it to a fluid, and a common divider between each section (Abstract and claim 1). The first section is clear and transparent, to allow passage solar radiation, and the second section is opaque, dark, or black (col. 6, lines 27-32). The present claims require that the multiwall sheet contain only structural elements comprising a polycarbonate and carbon black. The claims therefore do not allow the presence of both a transparent section and a black section as disclosed by Erb. Further, Erb does not disclose an automotive assembly plant separator pane. Erb therefore does not anticipate the present claims.

Erb further does not render the present claims obvious. Erb is concerned with design and manufacture of constructions having both a clear section and a dark or black solar radiation absorbing section. The present multiwall sheets have carbon black throughout their construction, in that that they "consist of" a first sheet, a second sheet, and ribs, and other optional structural elements, each of which contain the recited amount of carbon black. The structural elements cannot correspond to two different types of sheets. Further, modification of the sheets of Erb to obtain the multiwall sheets of the present claims would destroy the function of Erb. In this regard, the courts have held that "[i]f the proposed modification would render the prior art invention being modified unsatisfactorily for its intended purpose, then there is no suggestion or motivation to make the proposed modification." *In re Gordon* 733 F. 2d 900, 221 U.S.P.Q 1125 (Fed. Cir. 1984).

Accordingly, Applicants submit that claim 1, 11, and 12 as amended are allowable, and reconsideration and withdrawal of this rejection is respectfully requested.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1, 5-6 and 9-12 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over DeHeras et al (U.S. Patent No. 4,773,534) in view of Schmitz et al (U.S.

Patent No. 5,360,658) and Ho et al (U.S. Patent No. 5,658,644). Applicants respectfully traverse this rejection.

DeHeras discloses a transporter for printed circuit boards, with the transporter having an outer shell made up of conductive polypropylene having a double wall and a plurality of I-beams Abstract, col. 2, lines 24-31 and claim 1). DeHeras specifically describes the outer layer fabricated from conductive polypropylene as an extrudable material that provides protection against physical damage and that shields from radio frequency and static electricity (col. 2, lines 24-36). DeHeras does not disclose or teach the use of plastics generally as a fabrication material and fails to disclose or suggest any alternate fabrication materials. As indicated in Table 2 at page 45 of the present application, polypropylene was not a good choice for use in separator panels because polypropylene multiwall sheets show surface softness and do not maintain permanent anti-static properties (Table 2, p. 45). Further, DeHeras fails to disclose or suggest alternative electrically conductive materials out of the many ways to impart conductivity out of a long list of possible polymers and polymer blends.

Schmitz discloses an antistatic composition containing polycarbonate, polyalkylene terephthalate, and 13-18 wt.% carbon black. The composition can be extruded into a solid sheet and used for packaging electronic components (col. 1, lines 5-25). However, Schmitz fails to provide any disclosure suggesting that the compositions disclosed there could be used in the manufacture of multiwall sheets. The Examiner cites Ho as order to show motivation for one of skill in the art to use the compositions of Schmitz in the articles of DeHeras, because Ho discloses the possibility of using either material for a multiwall sheet (Office Action, p. 4). However, Ho multi-sheet constructions made from a laundry list of thermoplastic materials:

Out of the wide range of thermoplastic materials which may be used for preparing the extruded shapes according to this invention, the following ones may be cited in a way of illustrative, but not limited, for example: polyolefins, among which polypropylene and polyethylene, filled polyethylene (filled with materials such as talc, calcium carbonate, mica, and other fillers known in the products, as well as mixtures of the filled materials) and their copolymers; polystyrene and styrene copolymers of various kinds; acrylic resins; polycarbonates; polyethylene terephthalate and its copolymers.

(Col. 3, lines 6-15.)

Even though polycarbonate is disclosed in Ho, there is nothing in Ho that would lead one of ordinary skill in the art to select polycarbonate, and use that material instead of any other. The Examiner cannot establish obviousness by locating a reference that describes various aspects of a patent application(s) or invention with also providing evidence of a motivating force that would have impelled one skilled in the art to do what the application has done. *Ex parte Levengood*, 28 U.S.P.Q. 2d 1300 (Bd. Pat. App. Int. 1993). The references, when viewed by themselves and not in retrospect, must suggest the invention. *In Re Skoll*, 187 U.S.P.Q. 481 (C.C.P.A. 1975).

This is particularly so because Ho teaches the use of both polypropylene and polycarbonate in a multi-wall sheet. Ho therefore teaches the equivalency of polypropylene and polycarbonate in multiwall sheets. Such is decidedly not the case, however. As demonstrated in the present application, it was found that a multiwall sheet using polypropylene had undesirable qualities, in particular low hardness compared to polycarbonate multiwall sheets, and inferior static decay after washing (Table 2, p. 45). Hardness in particular is very important in the manufacture of separator panels for use in automotive assembly plants, where the automotive parts to be separated can be large and heavy. Hardness levels that are satisfactory for transporting circuit boards are not necessarily sufficient for use in the claimed automotive assembly separator panels. It is further noted that none of the references cited by the Examiner is directed to these articles as presently claimed, and one of ordinary skill in the art would have no particular expectation that any of the compositions disclosed in DeHeras, Schmitz, or Ho would be useful in these articles.

None of the advantages of the present compositions is taught or suggest by DeHeras, Schmitz, or Ho. One of ordinary skill in the art accordingly could not rely on such advantages when selecting a material from the list of Ho. Reconsideration of and withdrawal of the rejection of the claims over DeHeras in view of Schmidt and Ho is therefore respectfully requested.

Claims 1-3 and 5-12 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Dobler et al (U.S. Patent No. 6,680,350) in view of Schmitz and Jaatinen (U.S. Patent No. 6,649,677) or Rhodes (WO02/23899). Applicants traverse this rejection.

Dobler discloses molding compositions of transparent thermoplastic polymers and phthalocyanines or naphthalocyanines (Col. 1, lines 5-7). The molding compositions are used in preparing a glazing that is non-cloudy with high transparency in the visible light range and having absorbance in the near infrared (NIR) (Col. 8, lines 3-5). The molding compositions may also be used in extruded twin- or multiwall sheets (Col. 10, lines 15-16).

As the Examiner has noted, Dobler does not disclose the use of conductive filler as an additive, but instead discloses near-infrared glazing compounds (Col. 8, lines 3-5). Dobler discloses that the molding composition have the “advantageous properties of the unmodified transparent thermoplastic polymer,” including “high lightfastness, low cloud, and good mechanical properties” (Col. 8, lines 11-14). Dobler further discloses that additives, such as fillers as noted by the Examiner, “can be incorporated into the molding compositions according to the invention,” but are only optionally added at levels of “up to 5 wt% each, particularly preferably 0.01 wt. % to 1 wt. % based on the mass of the thermoplastic transparent polymer ” (Col. 8, lines 27-30 and 37-44). Schmitz discloses polycarbonate sheets with “a minimum carbon black content of 13%” to maintain the desired elongation at break properties (emphasis added). (Col. 2, lines 38-40). Thus, Schmitz teaches the use of an amount of carbon black that is more than a factor of two in excess of the maximum amount of filler taught in Dobler, thus implying that combining with Schmitz can undesirably affect the properties of the unmodified transparent polymer of Dobler (i.e., the combination would render the Dobler composition inoperable for its desired application). The combination of Dobler with Schmitz therefore fails to provide a reasonable expectation for success for the combination. Further, the mismatch in the amount of filler in Dobler and carbon black in Schmitz does not provide either a suggestion or incentive for combining these references. Therefore, for at least the above reasons, the combination of Dobler with Schmitz does not disclose, teach, or suggest the invention of instant Claim 1, does not provide a suggestion or incentive for combining these references, and fails to provide a reasonable expectation for success for the combination of references. Jaatinen and Rhodes do not appear to remedy the

deficiencies of the combination of Dobler and Schmitz as described above. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and withdrawal of the objection(s) and rejection(s) and allowance of the case are respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 50-3621.

Respectfully submitted,

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